217/782-2113

TITLE I FEDERALLY ENFORCEABLE PERMIT

PERMITTEE

SCA Tissue North America
Attn: Ki C. Harmon
13101 South Pulaski Road
Alsip, Illinois 60803

Application No.: 02020043
I.D. No.: 031003ADF
Applicant's Designation: TISSUE
Date Received: February 11, 2002
Subject: Paper Recycling
Date Issued: August 4, 2004
Location: 13101 South Pulaski Road, Alsip

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a plant that processes direct entry wastepaper, virgin pulp, and de-inked market pulp (fiber) into tissue paper as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

Findings

1. SCA Tissue North America (SCA Tissue) has applied for a permit for its paper recycling plant in Alsip, which it purchased in 2001. This permit would address requirements of 35 IAC Part 203 for a major source, including control of volatile organic material emissions to the Lowest Achievable Emission Rate (LAER). This permit would be issued in conjunction with the settlement of the related enforcement action.

2. The area in which the source is located is designated as nonattainment for ozone.

3. This permit addresses the plant as a major new source subject to 35 IAC, Part 203 (Major Stationary Sources Construction and Modification (MSSCAM)) because the plant's actual VOM emissions were in excess of 100 tons/year, when it was initially constructed and began operation in 1988.

4a. i. After reviewing all materials submitted by SCA Tissue, the Illinois EPA has determined that the plant will meet the Lowest Achievable Emission Rate (LAER).

ii. Conditions 2.1.6(b), (c), and 2.2.6 of this permit represent the Lowest Achievable Emissions Rate (LAER), pursuant to 35 IAC 203.301, for emissions of VOM. As these conditions constitute a determination of LAER, these requirements remain in effect pursuant to 35 IAC 203.601 until the Illinois EPA deletes or revises these requirements in accordance with applicable procedures of 35 IAC Part 203.

b. This permit relies upon the majority of the plant's VOM emission units complying with "Other Emission Units" 35 IAC Part 218, Subpart TT, by means of the alternative standard of 35 IAC 218.986(c) rather than control on subject emission units in accordance with 35 IAC 218.986(a).

c. As related to 35 IAC 218.301, operation of certain emission units is otherwise provided for by the terms and conditions of the Consent Order entered in Case No. 03-CH-09501 (Cook County Circuit Court), State of Illinois v. XCTC, Wisconsin Tissue, Georgia-Pacific Tissue and SCA Tissue.

5a. The permitted VOM emissions of this plant, as established by this permit are 75 tons/year. As a consequence, SCA Tissue must provide emission offsets in the amount of 75 tons to fulfill the offset requirements of 35 IAC 203.302, as they existed when the plant was constructed.

However, this permit does not address the requirement to provide emission offsets under 35 IAC 203.302 for operation of the plant prior to issuance of this permit. The requirement for emissions offsets for prior operation of the plant and the means by which such obligation is satisfied is being addressed in a separate legal proceeding to resolve a pending enforcement case.

b. SCA Tissue has identified other major sources in Illinois that it owns or operates or that are under common control with SCA Tissue and confirmed that such sources are in compliance with applicable emission standards under the Clean Air Act, as required by 35 IAC 203.305.

c. The Illinois EPA has considered alternatives for the plant and determined that the benefits of this plant, which has operated for over a decade, outweigh its environmental and social costs, as required by 35 IAC 203.306.

6. For purposes of 35 IAC 218, Subpart TT, this permit establishes an "alternative control plan" as provided by 35 IAC 218.986(c), 35 IAC 218.991(c) and 35 IAC 218.108(b) for almost all operations conducted at this source. The Illinois EPA is authorized to establish alternative control plans in a federally enforceable permit. The alternative control plan is found in Condition 2.1.3(c) and other related recordkeeping and reporting requirements in conditions of this permit that address VOM emissions from the affected units.

7. A copy of the application, the Illinois EPA's project summary and a draft of this permit were forwarded to a location in the vicinity of the plant, and the public was given notice and opportunity to examine this material, to submit comments, and to request and participate in a public hearing on this matter.

1.0 PLANT-WIDE CONDITIONS

VOM emissions from this plant shall not exceed 75.0 tons per year.

2.0 UNIT SPECIFIC CONDITIONS

2.1 Emission Units 01-02: Tissue Paper Mill (Chemical Addition Activities)

2.1.1 Description

There are two principal process areas at the plant.

In the Pulping Process Area, fiber is received from the warehouse, blended with water, and pulped to separate the paper fibers. Dirt, paper fillers, and ink are washed from the fiber in a series of vessels with the aid of chemical surfactants and polymers. The fiber is also bleached using a non-chlorine based process. The prepared fiber is partially dewatered and stored in a large vessel, commonly called a high density chest. In this area, process water is filtered for reuse, and excess water is treated before being sent to the local municipal wastewater treatment plant.

The cleaned fiber is pumped from the high density chest to stock preparation in the Paper Machine Process Area. The fiber receives further physical preparation and additives to impart desirable physical properties to the fibers. The prepared fiber is then pumped to the wet end of the paper machine where the fiber is spread out on a bed of wire. The wire is periodically cleaned with a solvent as needed to inhibit and remove accumulation of "stickies" on the wire that result in "holes" in the paper product. The pulp drains and forms into a wet mat that is pressed and dried to form the tissue paper. The tissue paper winds onto massive spools. From the spools the paper is trimmed into rolls for shipping to converting plants. VOM is generated during processing by the volatilization of organic materials in the paper. VOM emissions are further generated during paper drying (i.e., in the Yankee Dryer) and during treatment of wastewater.

2.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
01	Pulping Process Area (Including Fiber Storage Building, Displector, High Density Pulper, Thickeners with Cyclones, Cloudy Water Tanks, Clarifiers, Double Wire Press, High Density Storage Towers, Flotation Cells, Screw Press, and Medium Consistency Standpipe)	None

Emission Unit	Description	Emission Control Equipment
02	Paper Machine Process Area (Including Disk Filter, Clarifier, Paper Machine, Headbox, Vacuum Pump/Blower Systems, Fan Pump Silo, and Clean-Up Spray)	None

2.1.3 Applicability Provisions and Applicable Regulations

a. The "affected units" for the purpose of these unit-specific conditions are the operations described in Condition 2.1.1, including the specific emission units listed in Condition 2.1.2.

b. The application of release agent applied at the Yankee Dryer, as well as Yankee adhesive shall meet the requirements of 35 IAC 218.204(c) for paper coating, requiring that the VOM content of the coating not exceed 2.3 lb VOM/gal of coating as applied, minus water and exempt compounds.

c. Except as provided in Condition 2.1.3(b) above, the affected units are subject to 35 IAC 218, Subpart TT: Other Emission Units, because the maximum theoretical emissions from applicable emission units were in the past greater than 100 tons per year. Compliance shall be met based on compliance with a limit of 73.9 tons of VOM per year considering VOM emissions from affected units. The alternative control plan requirements are set forth in 35 IAC 218.986(c).

Note: This alternative control plan requires an equivalent 81% reduction in VOM emissions generated at the source during its first representative year of operation in 1990. The emission limit of 73.9 tons of VOM per year was demonstrated to be equivalent to greater than 81% reduction in VOM emissions when measured in the appropriate units for paper production of lb VOM per ADT (Air-Dried Ton of finished paper).

d. i. Each affected unit is subject to 35 IAC 218.301: Use of Organic Material, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided by Board rule (e.g., 35 IAC 218.302, 218.303 or 218.304) and the following exception: If no odor nuisance exists this limitation shall apply only to photochemically reactive material. For this purpose, the

definition of photochemically reactive material at 35 IAC 211.4690 is applicable.

ii. Notwithstanding the above requirement, the Permittee's compliance with 35 IAC 218.301 is fully addressed by terms and conditions of the Consent Order entered in Case No. 03-CH-09501 (Cook County Circuit Court), State of Illinois v. XCTC, Wisconsin Tissue, Georgia-Pacific Tissue and SCA Tissue.

2.1.4 Non-Applicability of Regulations of Concern

None

2.1.5 Control Requirements and Operational Limits

For the solvent system used for cleaning the paper machine, the Permittee shall perform routine inspections of the affected units in order to identify and repair leaks of VOM from components, as defined by 35 IAC 211.1350. For this purpose, a component means a valve, pump, flange or similar fitting or device that is intended to operate without leaks (such as the system used for delivering cleaning solvent to the paper machine), and does not include open tanks, drying systems, or material transfer in which process materials are normally exposed to the atmosphere. Any leaks from components subject to the control requirements of 35 IAC 218, Subpart TT shall be subject to the following control measures:

Repair any component from which a leak of volatile organic liquid (VOL) can be observed. The repair shall be completed as soon as practicable but no later than 15 days after the leak is found, unless the leaking component cannot be repaired until the next process unit shutdown, in which case the leaking component must be repaired before the unit is restarted [35 IAC 218.986(e)(1)].

2.1.6 Emission Limitations

a. The VOM emissions from affected units shall not exceed 73.9 tons/year, total. Compliance with this limit shall be determined as the sum of (i) readily quantified VOM emissions, i.e., VOM emissions attributable to specific VOM containing process materials used on an affected unit, and (ii) other VOM emissions. For this purpose, the "readily quantifiable VOM emissions" attributable to specific raw materials shall be determined by material balance, based on actual usage and the VOM of the

material as provided by the supplier or as determined by representative testing in accordance with Condition 2.1.7. "Other VOM emissions" shall be presumed to contribute 0.97 pounds of VOM per ton of air dried finished paper, this factor developed from emission test data cited in the National Council of the Paper Industry for Air and Stream Improvement (NCASI) Technical Bulletin 739 Table 5-20, Mill DD and NCASI Technical Bulletin 740 Tables 5-41 and 5-42 Mill HH.

b. The VOM content of the following materials used on the affected units shall not exceed:

Material	Emission Limitation
Cleanup	≤ 50% by weight VOM
Defoamer	≤ 1% by weight VOM
Release Agent	≤ 50% by weight VOM

c. The VOM emissions attributable to use of the following materials on the affected units shall not exceed 5.0 tons/year, total:

i. Displector

ii. Cationic Press Polymers

iii. Anionic Polymers

iv. Surfactants for Boilouts

v. Wire Polymer

vi. Pulp Detactifier

vii. Absorbency Aid

viii. Retention Aid

ix. Color Control Dyes

x. Wet Strength Resin

Note: Conditions 2.1.6(b) and (c) represent the Lowest Achievable Emission Rate (LAER) for emissions of VOM from the paper machine process and fiber process, pursuant to 35 IAC 203.301.

2.1.7 Testing Requirements

a. Upon request by the Illinois EPA, the VOM content of VOM-containing materials shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR Part 60, Appendix A and the procedures of 35 IAC 218.105 [35 IAC 218.211(a)].

b. Upon request by the Illinois EPA, the Permittee of a VOM emission unit subject to the requirements of 35 IAC 218, Subpart TT shall, at his own expense, conduct such tests in accordance with the applicable test methods and procedures specified in 35 IAC 218.105 [35 IAC 218.988(a)]. Nothing in this condition shall limit the authority of the USEPA to require testing [35 IAC 218.988(b)].

2.1.8 Monitoring Requirements

None

2.1.9 Recordkeeping Requirements

a. The Permittee shall record the following for leaks detected by the inspection program required by Condition 2.1.5:

For any leak which cannot be readily repaired within one hour after detection, the following records, as set forth below in this subsection, shall be kept. These records shall be maintained by the owner or operator for a minimum of two years after the date on which they are made, or such longer period as may be specified by this permit. Copies of the records shall be made available to the Illinois EPA or USEPA upon verbal or written request.

i. The name and identification of the leaking component [35 IAC 218.986(e)(2)(A)];

ii. The date and time the leak is detected [35 IAC 218.986(e)(2)(B)];

iii. The action taken to repair the leak [35 IAC 218.986(e)(2)(C)]; and

iv. The date and time the leak is repaired [35 IAC 218.986(e)(2)(D)].

b. The Permittee shall keep the following records of operation of affected units:

i. Production of finished paper (tons/month and ton/year of air-dried finished product);

ii. Identification of each VOM-containing material used, with type of material, maximum VOM content (weight percent), overall density (lb/gal) and source of data for VOM content, i.e., supplier data or testing in accordance with Condition 2.1.7(a); and

iii. Quantities of each VOM-containing material used (lb/month and ton/year).

c. The Permittee shall keep the following records related to emissions from affected units:

i. The annual VOM emissions from each emission unit which is not subject to the requirements of 35 IAC 218, Subpart TT;

ii. The aggregate monthly and annual VOM emissions from the affected units based on the material usage and production, with supporting calculations; and

iii. Calculation of the lb/ADT value over the past 12 months.

d. The Permittee shall maintain records of the testing required by Condition 2.1.7, which include the following:

i. The date, place and time of sampling or measurements;

ii. Identification of material tested;

iii. The operating conditions as existing at the time of sampling or measurement;

iv. The date(s) analyses were performed;

v. The company or entity that performed the analyses;

vi. The analytical techniques or methods used; and

vii. The results of such analyses.

2.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA of deviations of the affected units with the permit requirements as follows. [35 IAC 218.211(c) and 218.991(c)]

a. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

b. Reports shall include a copy of all relevant records.

c. Reports shall be sent to the Illinois EPA within 30 days following the occurrence of the deviation [35 IAC 218.991(a)(3)(A)].

2.2 Emission Unit 03: Heaters (Paper Machine Yankee Dryer)

2.2.1 Description

Large heaters provide heat used for the final step in drying the tissue paper in paper machine.

2.2.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
03	Two Natural Gas-Fired Heaters (Total Capacity: 44 Million Btu/Hr)	None

2.2.3 Applicability Provisions and Applicable Regulations

a. The “affected heaters” for the purpose of these unit-specific conditions, are the heaters listed in Condition 2.2.2, used for drying finished paper.

b. The affected heaters are subject to 35 IAC 216.121 which provides that no person shall cause or allow the emissions of carbon monoxide (CO) into the atmosphere from any fuel combustion emission source with actual heat input greater than 2.9 MW (10 mmBtu/hr) to exceed 200 ppm, corrected to 50 percent excess air.

2.2.4 Non-Applicability of Regulations of Concern

None

2.2.5 Operating and Control Requirements

a. The firing rate of the affected heaters shall not exceed 44 mmBtu/hr, total.

b. The affected heaters shall only be fired with natural gas.

c. The Permittee shall maintain and operate the burners in the heaters in accordance with good combustion practices.

2.2.6 Emission Limitations

Emissions from the affected heaters shall not exceed the following limits:

NO_x Emissions (T/Yr)	CO Emissions (T/Yr)	VOM Emissions (T/Yr)
19.30	16.2	1.06

2.2.7 Testing Requirements

None

2.2.8 Monitoring Requirements

None

2.2.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected heaters to demonstrate compliance with Conditions 2.2.5 and 2.2.6:

Consumption of natural gas by the affected heaters (in million cubic feet per month and per year)

2.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of an affected heater with the permit requirements as follows. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

b. Reports shall include a copy of all relevant records.

c. Reports shall be sent to the Illinois EPA within 30 days following the occurrence of the deviation [35 IAC 218.991(a)(3)(A)].

2.2.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

2.2.12 Compliance Procedures

For the affected heaters, compliance with the emission limits of this permit shall be based on the recordkeeping requirements in Condition 2.2.9 and appropriate emission factors. If the heaters are properly operated, the following factors may be used:

Pollutant	Emission Factor (lb/million ft^3)
CO	84
NO_x	100
PM	7.6
SO_2	0.6
VOM	5.5

These are the emission factors for uncontrolled natural gas combustion in small boilers (< 100 mmBtu/hr), Tables 1.4-1 and 1.4-2, AP-42, Volume I, Supplement D, March, 1998.

3.0 Emission Offsets

3.1 The Permittee shall provide 75 tons of VOM emissions reduction credits generated by itself and by other sources in the Chicago ozone nonattainment area such that the total is equal to the VOM emissions allowed for the plant, i.e., 75 tons/year of VOM.

3.2 These emission reduction credits shall be acquired from other sources as further provided by agreement between the Permittee and the State of Illinois regarding past noncompliance with 35 IAC Part 203. The Permittee shall provide the Illinois EPA with documentation, as follows, demonstrating that it has obtained the requisite amount of VOM emission offsets as specified above.

a. Reliance upon emission reduction credits from such source(s), i.e., supplier(s), must be approved by the Illinois EPA subject to the following:

i. The supplier of emission reduction credits must be located in Illinois in the Chicago ozone nonattainment area;

ii. Any proposal to supply emission reduction credits must be accompanied by detailed documentation to support the amount and creditability of the emission reduction credit;

iii. This permit must be amended by the Illinois EPA to identify the supplier of emission reduction credits pursuant to a request from the Permittee for such a permit amendment if the Illinois EPA approves the use of emission reduction credits from the supplier, and

iv. The supplier of emission reduction credits must be subject to appropriate measures given the nature of the underlying emission reduction to make the emission reduction permanent and federally enforceable.

b. If the Permittee obtains emission offsets directly from the supplier without the involvement of the Illinois EPA, the following additional requirements shall also be satisfied:

i. The supplier of offsets must submit a letter or other document signed by a responsible official or other authorized agent certifying that a transfer of emission reduction credit from its source has been made to the Permittee in the requisite amount to provide offsets for the wastepaper processing operation.

ii. The Permittee must submit a letter or other document signed by a corporate officer or other authorized agent certifying that a transfer of emission reduction credits has been received from such other source to provide offsets for the fiber processing operation. In this letter, the Permittee must also acknowledge that it may subsequently transfer these offsets to another party or return them to the supplier only if the allowable emissions of the tissue paper manufacturing operation are correspondingly reduced by an appropriate limitation in a federally enforceable permit, as the Permittee is otherwise under a legal obligation to maintain thee offsets pursuant to 35 IAC 203.602.

3.3 If this required document with respect to emission offsets is not provided within 90 days of the issuance of this permit, the permit shall cease to be effective until such time as such documentation is provided to and approved by the Illinois EPA.

Condition 3 represents the actions identified in conjunction with the fiber processing operation to ensure that it is accompanied by emission

offsets and does not interfere with reasonable further progress for VOM.

Note: Emission offsets are being required for this project because USEPA has not approved provisions of the ERMS that would allow compliance with the ERMS to satisfy the offset requirements for a major modification in 35 IAC Part 203.

If you have any questions on this, please call Bob Smet at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:RPS:jar

cc: Region 1